DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-001559 Address: 333 Burma Road **Date Inspected:** 28-Feb-2008

City: Oakland, CA 94607

OSM Arrival Time: 600 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island

CWI Name: Sun Wei **CWI Present:** Yes No Yes **Inspected CWI report:** N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG Deck Panels**

Summary of Items Observed:

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to perform observations of the welding of Orthotropic Box Girder (OBG) U-rib Production Monitoring Test (PMT) and Production Panel, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Caltrans QA Inspector Viars observed the U-rib Production Monitoring Test for Production Panel DP026-001 and DP030-001 closed rib welds in Bay #1. ZPMC welding personnel performed Gantry Machine Gas Metal Arc Welding (GMAW) for the root pass. Dual process WPS-B-T-2342-U1 (U-rib)-3 was posted as the Welding procedure specification for closed rib welding. The following weld joint and welder were recorded for the PMT, weld joint (wj) wj # 1 Mr. Song Yin Shu, wj # 2 Mr. Chen Jie, wj # 3 Mr. Gao Xin Dong, wj # 4 Mr. Jiang Ting Guang. The Welding operator was Mr. Li Xide. The following welding variables of the PMT were recorded, amperage 341 to 357, voltage 30.5 to 31.4 with a travel speed of 525 mm/min.

Welding of the PMT was performed simultaneously on two separate rib panels.

The ambient temperature in bay # 1 was recorded at 7 degrees Celsius at 0846 with the PMT panel temperature recorded at 11 degrees Celsius prior to welding.

After completion of the PMT GMAW pass ZPMC personnel performed the GMAW pass on Production Panel DP026-001. The following welders were observed welding production deck plate u-ribs welds, Mr. Song Yin Shu wj-1 and 7, Mr. Chen Jie wj-2 and 8, Mr. Guo Xin Dong wj-3 and 5 and Mr. Jiang Ting Guang wj-4 and 6. The

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following welding variables of production panel U-ribs were recorded, amperage 340 to 363, voltage 30.4 to 31.3 with a travel speed of 525.

After completion of the DP026-001 GMAW pass ZPMC personnel performed the GMAW pass on DP030-001. The following welders were observed welding production deck plate u-ribs welds, Mr. Song Yin Shu wj-1 and 7, Mr. Chen Jie wj- 2 and 8, Mr. Guo Xin Dong wj-3 and 5 and Mr. Jiang Ting Guang wj-4 and 6. The following welding variables of production panel U-ribs were recorded, amperage 340 to 366, voltage 30.5 to 31.8 with a travel speed of 515.

Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Viars,Larry	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer